

# WILDLIFE MANAGEMENT



# AND RESEARCH NOTES

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956	Title Wild Turkey Population Indices - Spring, 2008.	6/6/08

**Abstract:** *The mean number of wild turkeys heard along 10 roadside counts during 1 – 18 April 2008 was 0.75 gobblers heard per stop, a 6% decrease compared to the gobbling index of 0.80 in 2007. The long-term trends show a increase since 1987 except for the general downward trend in 3 of the last 4 years. The 6% decrease in the gobbling index in 2008 and 2 previous years primarily reflects the lower summer production levels since 2005.*

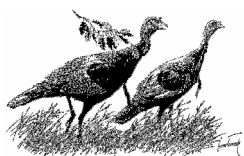
*Work Plan: # 20430; formerly Pittman-Robertson Federal Aid Study/Research Job No.: W-26-R, Job 16-G-4.*

Gobbler counts are conducted annually during late March to April to determine the relative population trends of wild turkeys in the areas surveyed. In 2008, 10 traditional areas were surveyed in portions of 14 counties. Roadside gobbler trend routes were conducted in conjunction with roadside trend routes for ruffed grouse. Each route has 15 predetermined listening stops along 10-20 miles of rural roadways. The average number of gobblers heard on 10 roadside trend routes ranged from 0.33 to 2.33 gobblers heard per stop (**Table 1**). Overall, an average of 0.75 gobblers were heard were heard per stop in 2008 which was 6% less than the number heard in 2007. The general decrease in gobbling indices reflects lower overall production since 2005. The 2006 index was the exception, reflecting the record high production in 2004 that dramatically influenced the 2006 higher proportion of the normally vocal 2-yr-old gobblers in the age structure of the population.

While roadside routes are not accurate indicators of annual trends in wild turkey populations, they provide some long-term ( $\geq 5$  yrs) trends and provide information to compare areas relative to each other (**Table 2**). Weather conditions during the survey period can contribute to the variability of annual trends. Annual variations may also reflect the proportion of 2-year-old gobblers in the population rather than actual population trends over the long term. The substantial increase in the 2006 gobbling index is a prime example where the record high summer brood production in 2004 (Backs 2006) became quite evident (**Figure 1**). The general decrease in the gobbling indices since 2005, with the exception of the 2006 high, reflects lower summer brood production of 2005-2007. The 22 survey years represent a period of time when most turkey populations were undergoing steady growth. As wild turkey populations mature and population growth stabilizes, the gobbling count indices will decrease and begin fluctuating above/below a lower, long-term mean unless habitat conditions or harvest strategies change the impact of environmental influences.

## Literature Cited

Backs, S. E. 2006. Wild turkey brood production – Summer 2005. Wildlife Management and Research Note #910. Indiana Division of Fish and Wildlife, Indianapolis. 5pp.;



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Table 1. Wild turkeys heard on roadside counts in Indiana between 1 - 18 April 2008.

County/Area	No. of Routes/ Stops	No. of Repetitions (for/rev)	Total Turkeys Heard	Total Seen	Highest Number Heard/Rt.	Turkeys Heard <sup>1/</sup> Per Stop	
						2008	2007
Jackson, Brown, Monroe (Hickory Ridge, USFS)	1/15	4	57	3	35	2.33	1.07
Owen-Putnam	1/15	2	8	0	5	0.33	0.20
Perry Co. (Oriole-St.Croix-USFS)	1/15	2	19	0	10	0.67	1.00
Washington State Forest	1/15	2	11	0	6	0.40	0.80
Lawrence & Orange (Lost River - E, USFS)	1/15	2	15	0	8	0.53	0.60
Martin & Orange (Lost River - W, USFS)	1/15	2	17	2	10	0.67	1.07
Morgan-Monroe State Forest	1/15	2	19	0	10	0.67	0.73
Greene	1/15	2	6	5	1	0.07	0.27
Orange (Little Fork, USFS)	1/15	2	19	2	10	0.67	0.73
Jefferson	1/15	2	39	1	18	1.20	1.53
Means						0.75	0.80

<sup>1/</sup> Indices calculated using route with highest count.

Table 2. Wild turkey roadside gobbling counts during April in Indiana from 1987 to 2008.

Year	Gobblers Heard Per Stop *										YEAR MEAN
	HICKORY	OWPUT	PERRY	WASH	LR-EAST	LR-WEST	MORGAN	GREENE	LICKCR	JEFFERSON	
1987	1.10	0.07	0.00	0.20	0.53	NR	0.27	0.00	0.00	1.00	0.35
1988	0.73	0.13	0.13	0.00	0.47	NR	0.20	0.07	0.00	1.13	0.32
1989	1.13	0.00	0.21	0.00	0.87	NR	0.20	0.00	0.47	0.73	0.40
1990	0.80	0.13	0.20	0.00	1.00	1.27	0.27	0.07	0.73	0.53	0.50
1991	0.33	0.20	0.40	0.00	0.87	0.53	0.33	0.07	0.87	1.07	0.47
1992	0.73	0.07	0.20	0.00	0.80	1.87	0.00	0.07	0.67	0.53	0.49
1993	0.47	0.00	0.47	0.00	0.27	0.53	0.07	0.20	0.47	1.20	0.37
1994	0.53	0.13	0.47	0.00	0.73	0.27	0.13	0.27	0.80	0.80	0.41
1995	0.67	0.00	0.80	0.00	0.93	0.73	0.00	0.13	0.80	1.53	0.56
1996	1.13	0.33	0.80	0.07	0.60	1.47	0.27	0.13	0.53	0.80	0.61
1997	0.67	0.20	0.87	0.07	0.73	0.47	0.47	0.00	0.60	0.93	0.50
1998	1.40	0.27	0.47	0.40	0.60	0.53	0.33	0.67	0.27	0.80	0.57
1999	0.80	0.60	0.47	0.27	1.27	0.53	0.67	0.40	0.87	1.20	0.71
2000	0.60	0.20	0.53	0.67	1.27	0.47	0.27	0.67	1.20	1.33	0.72
2001	0.73	0.53	0.60	0.60	0.67	0.73	0.33	0.33	0.93	1.73	0.72
2002	0.33	0.60	0.53	0.80	1.27	0.93	0.53	0.20	1.13	1.33	0.77
2003	0.53	0.20	0.60	1.47	1.07	0.67	0.80	0.60	1.00	2.13	0.91
2004	0.80	0.20	1.07	1.33	0.87	0.73	1.33	0.60	1.00	1.87	0.98
2005	0.93	0.27	0.87	1.20	1.07	1.47	0.33	0.60	0.80	1.47	0.90
2006	2.67	0.60	0.93	0.73	1.60	2.27	0.53	1.53	1.47	2.20	1.45
2007	1.07	0.20	1.00	0.80	0.60	1.07	0.73	0.27	0.73	1.53	0.80
<i>Cumm. Mean</i>	<i>0.86</i>	<i>0.23</i>	<i>0.55</i>	<i>0.41</i>	<i>0.86</i>	<i>0.92</i>	<i>0.38</i>	<i>0.33</i>	<i>0.73</i>	<i>1.23</i>	<i>0.64</i>
<i>5 Yr Mean</i>	<i>1.20</i>	<i>0.29</i>	<i>0.89</i>	<i>1.11</i>	<i>1.04</i>	<i>1.24</i>	<i>0.75</i>	<i>0.72</i>	<i>1.00</i>	<i>1.84</i>	<i>1.01</i>
<b>2008</b>	<b>2.33</b>	<b>0.33</b>	<b>0.67</b>	<b>0.40</b>	<b>0.53</b>	<b>0.67</b>	<b>0.67</b>	<b>0.07</b>	<b>0.67</b>	<b>1.20</b>	<b>0.75</b>

\*

= Indices calculated using route with highest count.

HICKORY = Hickory Ridge (USFS), Lawrence and Jackson Counties

OWPUT = General area of Owen-Putnam St. Forest

PERRY = northern portion of Perry Co.(USFS)

WASH = general area of Jackson-Washington St. Forest in Washington County

LR-EAST = Lost River Unit - East, USFS, Lawrence and Orange Counties.

**YEAR MEAN** = Arithmetic average value for all routes for a respective year (row).

**SE** = standard error of annual (row) mean

*Cumm. Mean* = Cumulative mean for a particular route.

*5 Yr Mean* = mean for 5 years previous to survey year.

MORGMON = general area of Morgan-Monore St. Forest in Morgan county.

GREENE = eastern Greene County

LICKCR = Lick Creek Area, USFS, in Orange County.

JEFFERSON = Jefferson County

LR-WEST = Lost River Unit - West, USFS, Orange and Martin Counties.



**Figure 1. Roadside Gobbling Indices**

